CONTENTS OF VOLUME 37

NUMBER 1—15 JANUARY 2006

Robustness analysis of discrete time-delay systems
C.-P. HUANG and Y.-T. JUANG ... 1

Inventory model for deteriorating items and time value of money for a finite time horizon under the permissible delay in payments
N. H. SHAH ... 9

Replacement problems for a cold standby repairable system
Y. L. ZHANG, G. J. WANG and Z. C. JI ... 17

On the relocation problem with a second working crew for resource recycling
B. M. T. LIN and H. L. HUANG ... 27

Active/semi-active suspension control using magnetorheological actuators
M. A. KARKOUB and M. ZRIBI ... 35

Direct data compression of ECG signal for telemedicine
V. KUMAR, S. C. SAXENA and V. K. GIRI ... 45

NUMBER 2—10 FEBRUARY 2006

Special Issue: Anti-windup

Preface
M. TURNER and L. ZACCARIAN ... 65

Windup prevention for stable and unstable MIMO systems
P. HIPPE ... 67

Stability region enlargement through anti-windup strategy for linear systems with dynamics restricted actuator
S. TARBOURIECH, I. QUEINNEC and G. GARCIA ... 79

Discrete-time and sampled-data anti-windup synthesis: stability and performance
G. HERRMANN, M. C. TURNER and I. POSTLETHWAITE ... 91

Reduced order linear anti-windup augmentation for stable linear systems
S. GALEANI, M. MASSIMETTI, A. R. TEEL and L. ZACCARIAN ... 115

An anti-windup design for polytopic systems by a parameter-dependent Lyapunov function approach
Y.-Y. CAO and Z. LIN ... 129

NUMBER 3—20 FEBRUARY 2006

Global asymptotic stabilization of feedforward nonlinear systems with a delay in the input
X. ZHANG, H. GAO and C. ZHANG ... 141

Neuro-control of unmanned underwater vehicles
V. S. KODOGIANNIS ... 149

Production allocation and shipment policies in a multiple-manufacturer–single-retailer supply chain
S. S. PARK, T. KIM and Y. HONG ... 163

Robust mixed time-optimal control for third-order systems with model uncertainty
K. H. YOU and S. W. KWAK ... 173

Identification of dynamic systems under closed-loop control
P. LI, U. KRUGER and G. W. IRWIN ... 181

Application of Markov chains to identification of gas turbine engine dynamic models
T. V. BREIKIN, V. Y. ARKOV and G. G. KULIKOV ... 197

NUMBER 4—15 MARCH 2006

Robust adaptive output-feedback control for a class of nonlinear systems with general uncertainties
R. Y. RUAN, C. L. YANG, Z. M. WANG and Y. Z. LI ... 207

Conditions on input disturbance suppression for multivariable nonlinear systems on the basis of feedforward passivity
S. W. SU, J. BAO and P. L. LEE ... 225

A backward recursive algorithm for inventory lot-size models with power-form demand and shortages
H.-L. YANG ... 235

Singularly perturbed unified time systems with low sensitivity to model reduction using delta operators
K.-H. SHIM and M. E. SAWAN ... 243
Optimization of raw material procurement at pulp or paper mills – the influence of weather-related risks
D. HULTQVIST and L. OLSSON ... 253

NUMBER 5—15 APRIL 2006

Neural network modelling of continuous microbial cultivation accounting for the memory effects
P. KOPRINKOVA-HRISTOVA and T. PATARINSKA ... 271
Regulator problem for linear discrete-time delay systems with Markovian jumping parameters and symmetrical constraints
N. DARAOUI and A. BENZAOUIA ... 279
Reduced-order controller design for the general H_∞ control problem
J. ZENG, D. LIN and P. CHENG ... 287
Optimal inspection and economical production quantity strategy for an imperfect production process
Y.-C. CHEN ... 295
Design and implementation of a robust switching control scheme for a class of constrained robot tasks
B. YU and P. R. PAGILLA ... 303
An EOQ model with fuzzy inflation rate and fuzzy deterioration rate when a delay in payment is permissible
S. K. DE and A. GOSWAMI ... 323

NUMBER 6—15 MAY 2006

Special Issue: Cooperative Control Approaches for Multiple Autonomous Vehicles

Special issue theme: cooperative control approaches for multiple mobile robots
A. TSOURDOS and B. WHITE ... 337
Kripke modelling approaches of a multiple robots system with minimalist communication: A formal approach of choice
S. JEYARAMAN, A. TSOURDOS, R. ŻBIKOWSKI and B. WHITE ... 339
Cooperative forest fire surveillance using a team of small unmanned air vehicles
D. W. CASBEER, D. B. KINGSTON, R. W. BEARD and T. W. MCLAIN ... 351
A semiotic approach to the control of semi-autonomous robots
J. SEQUEIRA and I. RIBEIRO ... 361
A feedback-based multiagent navigation framework
S. G. LOIZOU and K. J. KYRIAKOPOULOS ... 377
Experimental demonstration of coordinated control for multi-vehicle teams
E. KING, Y. KUWATA and J. P. HOW ... 385
Coordinated path following control of multiple wheeled robots using linearization techniques
R. GHABCHELOO, A. PASCOAL, C. SILVESTRE and I. KAMINER ... 399
Optimal UAV formation guidance laws with timing constraint
C.-K. RYOO, Y.-H. KIM and M.-J. TAHK ... 415

NUMBER 7—10 JUNE 2006

Multiple-process performance analysis chart based on process loss indices
W. L. PEARN, Y. C. CHANG and C.-W. WU ... 429
New stable adaptive fuzzy approach to control uncertain nonlinear SISO systems
F. KHABER, A. HAMZAOUI, K. ZEHAR and N. ESSOUNBOULI ... 437
Least-squares parameter estimation of linear systems with noisy input–output data
W. X. ZHENG ... 447
Reaching condition for variable-structure output feedback controller using a search technique
G. RAY, S. DEY and T. K. BHATTACHARYYA ... 455
Decision-making on quality investment in a dynamic lot sizing production system
J.-C. TSOU ... 463
Adaptive control of linear Markov jump systems
D. CHENG and L. ZHANG ... 477

Backlash compensation of nonlinear systems using fuzzy logic
J. O. JANG and G. J. JEON ... 485

NUMBER 8—20 JUNE 2006

Special Issue: The 6th Portuguese Conference on Automatic Control (Controlo 2004)
Preface
A. E. RUANO ... 493
On the regularity of optimal controls for a class of problems with state constraints
M. M. A. FERREIRA ... 495
Distributed optimisation of a logistic system and its suppliers using ant colonies
C. A. SILVA, J. M. C. SOUSA, T. A. RUNKLER and J. M. G. SÁ DA COSTA ... 503
Linear matrix inequalities and evolutionary optimization in multiobjective control
A. MOLINA-CRISTÓBAL, I. A. GRIFFIN, P. J. FLEMING and D. H. OWENS ... 513
Adaptive control of distributed collector solar fields
J. M. LEMOS ... 523
Time-variable blood flow averaged waveforms
A. LEIRIA, M. M. M. MOURA, D. H. EVANS and M. G. RUANO... 535
Design of stabilizing PI and PID controllers
N. TAN and D. P. ATHERTON ... 543
Neural network approach to collision free path-planning for robotic manipulators
A. PASHKEVICH, M. KAZHEUNIKAU and A. E. RUANO ... 555
A new insight to the matrices extraction in a MOESP type subspace identification algorithm
C. J. M. DELGADO, P. LOPES DOS SANTOS and J. L. MARTINS DE CARVALHO ... 565
Estimation of the domain of attraction for saturated discrete-time systems
T. ALAMO, A. CEPEDA, D. LIMON and E. F. CAMACHO ... 575
Polynomial approach for design and robust analysis of Lateral missile control
L. BRUYERE, A. TSOURDOS and B. A. WHITE ... 585

NUMBER 9—15 JULY 2006

Asymptotic stabilization via output feedback for nonlinear systems with delayed output
X. ZHANG, C. ZHANG and Z. CHENG ... 599
Control of sampled-data systems with variable sampling rate
M. SCHINKEL and W.-H. CHEN ... 609
Identification of linear time varying systems by Haar wavelet
S.-L. CHEN, H.-C. LAI and K.-C. HO ... 619
Observer design for discrete-time systems subject to time-delay nonlinearities
S. IBRIR, W. F. XIE and C.-Y. SU ... 629
A new approach to static output feedback stabilization of linear dynamic systems
J. D. STEFANOVSKI and G. M. DIMIROVSKI ... 643

NUMBER 10—15 AUGUST 2006

An EOQ model with a quadratic demand, time-proportional deterioration and shortages in all cycles
S. K. GHOSH and K. S. CHAUDHURI ... 663
Applying fuzzy arithmetic to the system dynamics for the customer–producer–employment model
P.-T. CHANG, P.-F. PAI, K.-P. LIN and M.-S. WU ... 673
Adaptive sliding inverse control of a class of non-linear systems preceded by unknown non-symmetrical dead-zone
X.-S. WANG, C.-Y. SU and H. HONG ... 699
A fast learning algorithm for training feedforward neural networks
A. K. GOEL, S. C. SAXENA and S. BHANOT ... 709
Guaranteed cost output control for uncertain neutral systems with time-varying delays via LMI
C.-H. LIEN ... 723

NUMBER 11—15 SEPTEMBER 2006

A parametric frequency domain approach to decoupling with coupled rows
J. DEUTSCHER ... 735
A geometry-based algorithm for the stability of planar switching systems
L. GRECO, F. TOCCHINI and M. INNOCENTI ... 747
Optimal activation policies for continuous scanning observations in parameter estimation of distributed systems
M. PATAN ... 763
Global exponential stability analysis for neutral delay-differential systems: an LMI approach
M. LIU ... 777
Active fault tolerant control using state-space self-tuning control approach
J. SH.-H. TSAI, Y.-Y. LEE, P. COFIE, L.-S. SHIEH and X. M. CHEN ... 785

NUMBER 12—10 OCTOBER 2006

Pole-assignment fixed-interval Kalman smoother with an exponential stability
S.-L. SUN and Z.-L. DENG ... 799
Robust fault detection in linear systems based on PI observers
G.-R. DUAN and A.-G. WU ... 809
Deterministic and stochastic analysis of a ratio-dependent prey-predator system
A. MAITI and G. P. SAMANTA ... 817
A note on scheduling problems with learning effect and deteriorating jobs
J.-B. WANG ... 827
A coevolutionary algorithm for rules discovery in data mining
K. C. TAN, Q. YU and J. H. ANG ... 835

NUMBER 13—20 OCTOBER 2006

Special Issue: Advances in Data Mining and its Applications
Special issue on advances in data mining and its applications
Z. Y. DONG, X. LI and S. WANG ... 865
Hierarchical grouping of association rules and its application to a real-world domain
A. AN, S. KHAN and X. HUANG ... 867
Modeling support changes in streaming item sets
V. BHATNAGAR and S. KOCHHAR ... 879
Fitness assessment of document model
D.-Y. CHEN, X. LI, Z. Y. DONG and X. CHEN ... 893
Text learning for user profiling in e-commerce
M. DEGEMMIS, P. LOPS, S. FERILLI, N. DI MAURO, T. M. A. BASILE and G. SEMERARO ... 905
Mining associations between web stock news volumes and stock prices
X. LIANG ... 919
Integration of gene functional diversity for effective cancer detection
Y. PENG ... 931
FE-CIDIM: fast ensemble of CIDIM classifiers
G. RAMOS-JIMÉNEZ, J. DEL CAMPO-ÁVILA and R. MORALES-BUENO ... 939
A chemotactic-based model for spatial activity recognition
D. E. RIEDEL, S. VENKATESH and W. LIU ... 949
Structural damage detection by integrating independent component analysis and support vector machine
H. SONG, L. ZHONG and B. HAN ... 961
Extraction of classification rules characterized by ellipsoidal regions using soft-computing techniques
D. WANG and T. S. DILLON ... 969
Data mining and simulation: a grey relationship demonstration
D. WU, D. L. OLSON and Z. Y. DONG ... 981
ICLUS: A robust and scalable clustering model for time series via independent component analysis
E. H. C. WU and P. L. H. YU ... 987

NUMBER 14—15 NOVEMBER 2006

An inventory model with Weibull demand rate, finite rate of production and shortages
S. K. GHOSH, S. K. GOYAL and K. S. CHAUDHURI ... 1003
State probability of a series-parallel repairable system with two-types of failure states
G. LEVITIN, T. ZHANG and M. XIE ... 1011
Identification of coupled map lattice models for spatio-temporal patterns using wavelets
S. A. BILLINGS L. Z. GUO and H. L. WEI ... 1021
Robust nonlinear $\mathcal{H}_\infty$ control of sampled-data systems
S. K. NGUANG and P. SHI ... 1039
Iterative learning control with advanced output data for nonlinear non-minimum phase systems
G.-M. JEONG and C.-H. CHOI ... 1051
Practical stability of closed-loop descriptor systems
C. YANG, Q. ZHANG, Y. LIN and L. ZHOU ... 1059
Stability bound of discrete multiple time-delay singularly perturbed systems
J.-S. CHIOU ... 1069

NUMBER 15—15 DECEMBER 2006

Robust reliable control of switched uncertain systems with time-varying delay
S. YANG, X. ZHENGRONG, C. QINGWEI and H. WEILI ... 1077
Wavelet based non-parametric NARX models for nonlinear input–output system identification
H. L. WEI, S. A. BILLINGS and M. A. BALIKHIN ... 1089
On observer design for nonlinear systems
S. IBRIR ... 1097
Optimal control of a production inventory system with deteriorating items
L. TADJ, M. BOUNKHEL and Y. BENHADID ... 1111
Measure the quality level for a supplier-demand system by a multicommodity stochastic-flow network
Y.-K. LIN ... 1123
An EOQ model for deteriorating items with price- and stock-dependent selling rates under inflation and time value of money
K.-L. HOU and L.-C. LIN ... 1131
Project management decisions using fuzzy linear programming
T.-F. LIANG ... 1141